## TENASKA DELIVERABLES TO ICC CONSULTANT

The SB 1987 requirements for the Facility Cost Report and the ICC Report are set forth verbatim below, with footnotes inserted to describe the schedule for providing the material to the ICC Consultant that is relevant to each statutory requirement.

SB 1987:

"(i) <u>Facility cost report</u>. The owner of the initial clean coal facility shall submit to the Commission, the Agency, and the General Assembly a front-end engineering and design study<sup>1</sup>, a facility cost report, method of financing (including but not limited to structure and associated costs)<sup>2</sup>, and an operating and maintenance cost quote<sup>3</sup> for the facility (collectively "facility cost report"), which shall be prepared in accordance with the requirements of this paragraph (4) of subsection (d) of this Section, and shall provide the Commission and the Agency access to the work papers, relied upon documents, and any other backup documentation related to the facility cost report.

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(ii) <u>Commission report</u>. Within 6 months following receipt of the facility cost report, the Commission, in consultation with the Agency, shall submit a report to the General Assembly setting forth its analysis of the facility cost report. Such report shall include, but not be limited to, a comparison of the costs associated with electricity generated by the initial clean coal facility to the costs associated with electricity generated by other types of generation facilities<sup>4</sup>, an analysis of the rate impacts on residential and small business customers over the life of the sourcing agreements<sup>5</sup>, and an

analysis of the likelihood that the initial clean coal facility will commence commercial operation by and be delivering power to the facility's busbar by 2016<sup>6</sup>.

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The facility cost report shall be prepared as follows:

- (A) The facility cost report shall be prepared by duly licensed engineering and construction firms detailing the estimated capital costs payable to one or more contractors or suppliers for the engineering, procurement and construction of the components comprising the initial clean coal facility and the estimated costs of operation and maintenance of the facility. The facility cost report shall include:
- (i) an estimate of the capital cost of the core plant<sup>7</sup> based on one or more front end engineering and design studies for the gasification island and related facilities. The core plant shall include all civil, structural, mechanical, electrical, control, and safety systems.
- (ii) an estimate of the capital cost of the balance of the plant<sup>8</sup>, including any capital costs associated with sequestration of carbon dioxide emissions<sup>9</sup> and all interconnects and interfaces required to operate the facility, such as transmission of electricity, construction or back feed power supply, pipelines to transport substitute natural gas or carbon dioxide, potable water supply, natural gas supply, water supply, water discharge, landfill, access roads, and coal delivery.

The quoted construction costs shall be expressed in nominal dollars as of the date that the quote is prepared and shall include (1) capitalized financing costs during construction, (2) taxes,

insurance, and other owners costs, and (3) an assumed escalation in materials and labor beyond the date as of which the construction cost quote is expressed.

- (B) The front end engineering and design study for the gasification island and the cost study for the balance of plant shall include sufficient design work to permit quantification of major categories of materials, commodities and labor hours, and receipt of quotes from vendors of major equipment required to construct and operate the clean coal facility.
- (C) The facility cost report shall also include an operating and maintenance cost quote<sup>10</sup> that will provide the estimated cost of delivered fuel, personnel, maintenance contracts, chemicals, catalysts, consumables, spares, and other fixed and variable operations and maintenance costs.
  - (a) The delivered fuel cost estimate<sup>11</sup> will be provided by a recognized third party expert or experts in the fuel and transportation industries.
  - (b) The balance of the operating and maintenance cost quote, excluding delivered fuel costs will be developed based on the inputs provided by duly licensed engineering and construction firms performing the construction cost quote, potential vendors under long-term service agreements and plant operating agreements, or recognized third party plant operator or operators.

The operating and maintenance cost quote (including the cost of the front end engineering and design study) shall be expressed in nominal dollars as of the date that the quote is prepared and shall include (1) taxes, insurance, and other owner's costs, and (2) an assumed escalation in materials and labor beyond the date as of which the operating and maintenance cost quote is expressed.

(D) The facility cost report shall also include (i) "

an analysis of the initial clean coal facility's ability to deliver power and energy into the applicable regional transmission organization markets<sup>12</sup> and (ii) an analysis of the expected capacity factor for the initial clean coal facility<sup>13</sup>.

<sup>1</sup> The FEED study for the core plant will be performed by Kiewit Energy and Burns & McDonnell ("KBM") under an agreement entered into on March 18, 2009. The scope exhibit for this study is available to RFP respondents. An Exhibit showing the schedule for deliverables of significant components of the work product is appended as Attachment 1. Tenaska's internal engineering team and its Owner's Engineer (Worley Parsons), as well as representatives of KBM, will be available to review the interim deliverables with the ICC Consultant as needed.

<sup>&</sup>lt;sup>2</sup> Under the Clean Coal Portfolio Standard Law the power price is determined based on an assumed 55% debt, 45% equity capital structure, regardless of the actual method of financing. Tenaska will provide to the ICC Consultant both a pro forma model that projects the price of power over each year of the 30 year term of the Sourcing Agreements based on the assumed capital structure, as well as a presentation describing the actual method of finance that is contemplated. This pro forma and presentation will be available in October 2009. The pro forma will be updated in January 2010 based on the final cost and performance estimates from the KBM FEED study.

<sup>&</sup>lt;sup>3</sup> Tenaska expects that the operating and maintenance cost quote will be prepared by Siemens Power Generation, Inc. A draft of this quote and accompanying report will be available in

August 2009. The quote will be finalized in December 2009 following receipt of the Overall Plant Performance Summary from the KBM FEED study.

<sup>4</sup> Tenaska will commission Pace Global Energy or another nationally recognized energy consultant (the "Tenaska Energy Consultant") to prepare an estimate of the busbar cost of power over a 30 year term from the following types of intermediate and base load power generation facilities: (a) combined cycle natural gas, (b) pulverized coal without carbon capture, and (c) pulverized coal with post combustion capture. This report will be available in August 2009 as a resource for comparing the estimated TEC busbar cost when that becomes available in January 2010.

The Tenaska Energy Consultant will prepare a draft rate impact analysis to demonstrate whether the rate impact of the Taylorville Energy Center, is projected to be below the "cost effective" limit imposed by the Clean Coal Potfolio Standard Law (no greater than a 2.015% rate impact based on average rates for the year ending with May 2009). This rate impact analysis will be based on the methodology filed with the ICC by ComEd and Ameren in demonstrating cost effectiveness of their renewable energy programs. The draft of this analysis will be available in September 2009 and will be updated based on the final estimated TEC busbar cost when that becomes available in January 2010. The analysis will also include an assessment of the extent to which the presence of the TEC capacity could be expected to mitigate PJM Reliability Pricing Model (RPM) charges that are assessed against Commonwealth Edison.

<sup>6</sup> KBM's FEED study will include a project construction schedule. As shown in Attachment 1, the overall Project Level 2 Schedule will be available for review in November 2009.

<sup>7</sup> The estimate of the capital cost of the core plant will be provided as part of the KBM FEED study. Early deliverables for review prior to the final FEED study include (i) the Transportation Plan and Heavy Haul Logistics Plan (available August 2009), (ii) the Labor Survey (available August 2009 (iii) the Preliminary Equipment List, Pipeline List, and Instrument List (all available in October 2009), (iv) the Motor List and I/O List (both available in November 2009and (v) vendor quotes for major equipment packages, all or most of which will be available prior to December 2009.

<sup>&</sup>lt;sup>8</sup> The estimated capital costs for the balance of plant will be assembled by Worley Parsons, the Owner's Engineer and will be available in November 2009.

<sup>&</sup>lt;sup>9</sup> Christian County Generation (CCG) has entered into a CO2 Offtake Agreement with a party that will be identified to the ICC Consultant upon selection. The executed CO2 Offtake Agreement, including the pricing of CO2 sold under that agreement, will be made available upon selection. In addition, Schlumberger Carbon Services has been engaged to perform an assessment of the suitability of an area near the TEC site for geologic sequestration in the Mount Simon formation. Results of two dimensional seismic work will be available in \_\_\_\_\_ 2009 and a Risk Evaluation Report with a capital and operating cost estimate will be available in \_\_\_\_\_ 2009.

<sup>&</sup>lt;sup>10</sup> As noted above, Siemens will provide a draft of the Operations and Maintenance Cost Quote in August 2009 and a final report in December 2009.

<sup>11</sup> Tenaska will retain a nationally recognized fuel consultant to prepare a report estimating the delivered cost of fuel to the TEC. This report will be available in October 2009.

<sup>12</sup> Both MISO and PJM have completed their Feasibility Studies and are nearing completion of their system impact studies. CCG will likely withdraw one of the two interconnection requests after the results of both studies are complete. The system impact study for the interconnection that CCG will pursue should be available by mid-summer 2009. Tenaska will supplement ISO study work with analysis from its in-house transmission group to the extent necessary.

<sup>13</sup> The Tenaska Energy Consultant will prepare an analysis of the Facility's estimated capacity factor. A draft will be available in August 2009 and a final copy (based on final performance estimates that will be derived from FEED study) will be issued in January 2010.